MES College of Engineering,
Department of Computer Engineering
T.E.COMPUTER
DBMS Question Bank
(Unit 1-3)

Unit-01

1. **List Significant Different Between a file-processing system and DBMS.**
2. **What is Data Abstraction? Explain various levels of data Abstraction in database.**
3. Draw E-R Diagram for University Database
   i. List the Entity sets and their primary keys.
   ii. Extended the E-R diagram using aggregation to model the case where we want to record evaluations of a student by guide on a project.
4. Design E-R Models with Extended feature for Online Book Shopping database application. Consider different entities, entity set attributes and constraints.
5. **Construct an E-R diagram for Banking Database System. Consider various entities such as Account, Customer, Branch, Loan, Deposit, Borrower etc. Design Specialization and Generalization features.**
6. **Explain Database Architecture with suitable diagram.**
7. Explain features of Extended ER diagram.
8. Explain Super key, Candidate Key, Primary Key and Foreign Key with suitable example.
9. Differentiate primary and foreign key.
10. Explain conversion of ER diagram into tables with suitable example.
11. Construct an ER diagram for a car insurance company whose customers own one or more cars each. Each car has associated with it zero to any number of recorded accidents.
12. **Explain functions of DBA.**

Unit 2

1. **Explain View and Index in MySQL with Suitable Example.**
2. Consider the following relation.

   Person (pname, street, city),

works_for (pname, cname, salary)

Company (cname,city) and

Manages (pname, mname)

Solve the following queries using SQL:

i. Find street and city of all employees who work for the Appolo, live in Pune, and earn more than Rs. 50,000.

ii. Create a view consisting of the manager name and the average salary of all employees who work for that manger.

3. Consider relational schema

Employee (Empno, Ename, DeptNo, Salary),

Department (DeptNo,Dname).

Write SQL Queries for following questions

i. List the Employee Name of Computer Department

ii. Find Avg Salary of each department

iii. Find Department name of employee name "Amit".

4. Consider the database:

Cricket_player(p_id, Name, Address),

Match(Match_code, match_date, Match_place) and

Score(p_id, match_code, score).

Write SQL queries for:

1. List the player name, match_date, match_place and score of each player.
2. List all those player, whose maximum score is higher than 50.

5. Explain DDL,DML,DCL and TCL.

6. **Explain Join operation and its types with suitable example.**

7. **Explain referential integrity constraint.**

8. Write short note on Embedded and Dynamic SQL.

9. Consider relational schema

Customer (cname, ccity, phone)

Loan (lno, branch_name, amount)

Borrower (cname, lno)

Depositor (cname , accno)

Branch (bname, bcity)

Account(bname, accno, bal)

Write SQL queries for the following requirements:

1. Find the names of customers whose city name includes 'bad'.
2. Find all customers who have an account but not loan in the bank.
3. Find out average account balance at each branch.

10. Explain concept of procedure with suitable example.
11. **Explain different types of triggers.**
12. Explain difference between procedure and function.
13. Explain in detail creation of user defined exception.
14. **Explain structure of basic Pl/SQL block**
15. Examples given for practice of pl/sql

Unit 3

1. **Define Normalization. Explain 1NF 2NF & 3NF with Suitable Example.**
2. **Define transitive dependency. Explain third normal form with suitable example.**
3. Explain Relational database model with suitable example.
4. Define Normalization. Explain 2^{nd} normal form with suitable example.
5. Define normalization. Explain any two normal forms with suitable example.
6. **Define decomposition. Explain properties of decomposition with suitable example.**
7. **Define functional dependency. Explain its types with suitable example.**
8. **Examples on functional dependencies, attribute closure and decomposition covered in class.**

Subject Teacher

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